

Python: module grads.selectors

grads.selectors

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/pcmdi/halliday1/cdat-4.0/lib/python2.4/site-packages/grads/selectors.py

grads coordinate selectors -- world, world index, index

Classes

[cdms.selectors.SelectorComponent](#)
[IndexIndexComponent](#)
[NamedIndexComponent](#)

class ***IndexIndexComponent***([cdms.selectors.SelectorComponent](#))

index selector component by array index position

Methods defined here:

__init__(self, index, start, stop, stride=1)

__repr__(self)

specify(self, slab, axes, specifications, confined_by, aux)

Do specification for axis self.***id***; skip if axis not present.

Methods inherited from [cdms.selectors.SelectorComponent](#):

post(self, fetched, slab, axes, specifications, confined_by, aux, axismap)

Post-process fetched if desired, return new value.

Arguments slab, axes, specifications, confined_by, and aux are pre-subRegion call.

axismap gives the indices of fetched's axes in axes and should be modified as required by this method. Set axismap[i] to None indicate that you have eliminated an axis.

specifyGrid(self, var, grid, specs)

Refine the specification suitable for grid.intersect().

'var' is a variable.

'grid' is the grid associated with the variable.

'specs' is the result set of specifications, of the form defi

Return:

0 if self confines the grid.

1 if self is not associated with coordinate regions, or doe

Note: This function should return 0 only if self is a component of nonrectilinear grids. See class coordinateComponent.

class **NamedIndexComponent**(cdms.selectors.SelectorComponent)

world coordinate selector component by value of axis x,y,z,t

Methods defined here:

__init__(self, indexkey, start, stop, stride=1)

__repr__(self)

specify(self, slab, axes, specifications, confined_by, aux)

Do specification for axis self.id; skip if axis not present.

Methods inherited from cdms.selectors.SelectorComponent:

post(self, fetched, slab, axes, specifications, confined_by, aux, axismap)

Post-process fetched if desired, return new value.

Arguments slab, axes, specifications, confined_by, and aux are pre-subRegion call.

axismap gives the indices of fetched's axes in axes and should be modified as required by this method. Set axismap[i] to None indicate that you have eliminated an axis.

specifyGrid(self, var, grid, specs)

Refine the specification suitable for grid.intersect().

'var' is a variable.

'grid' is the grid associated with the variable.

'specs' is the result set of specifications, of the form defined

Return:

0 if self confines the grid.

1 if self is not associated with coordinate regions, or does

Note: This function should return 0 only if self is a component of nonrectilinear grids. See class coordinateComponent.

Functions

lat(*value)

world (from axis) coordinate selector by coordinate value -- latitude

lev(*value)

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world (from axis) coordinate selector by coordinate value -- level  
lon(*value)  
    world (from axis) coordinate selector by coordinate value -- longitude  
ndx1(start, stop=None, stride=1)  
    index selector by array index position 1  
ndx2(start, stop=None, stride=1)  
    index selector by array index position 2  
ndx3(start, stop=None, stride=1)  
    index selector by array index position 3  
ndx4(start, stop=None, stride=1)  
    index selector by array index position 4  
t(start, stop=None, stride=1)  
    world coordinate selector by index t -> time  
time(*value)  
    world (from axis) coordinate selector by coordinate value -- time  
x(start, stop=None, stride=1)  
    world coordinate selector by index x -> longitude  
y(start, stop=None, stride=1)  
    world coordinate selector by index y -> latitude  
z(start, stop=None, stride=1)  
    world coordinate selector by index z -> level
```